Green transformations at a university campus in Vietnam

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In January 2014, a group of eighteen Australian university students from a range of disciplines spent two weeks at Tra Vinh University in Tra Vinh, a small town in the Mekong Delta in Vietnam. The Australian university students were there as part of a credit-bearing unit about sustainability. This unit had been developed in collaboration with Tra Vinh University, a recent signatory to the Talloires Declaration of commitment to environmental sustainability in higher education. The Australian students collaborated with a group of local university students designing sustainability projects to help make Tra Vinh University campus and the surrounding community more ‘green’. The title of this paper refers in part to the transformations of the Tra Vinh university campus. It also refers to the transformative learning about sustainability that was observed to take place. This paper outlines the project, analysing what made this project successful in 2014. Key success factors identified include the need to adequately prepare the students, the need to actively scaffold the learning in practical activities, ensuring that there are tangible outcomes to the community and opportunities for social engagement with the locals. It is suggested that a project like this can promote transformative learning in education for sustainability. This paper is relevant to those involved in designing and delivering sustainability focussed curriculum abroad as well as those who want to involve students locally in academic learning through green campus activities.

Keywords: green campus, Talloires declaration, study tour, volunteering, education for sustainability, transformative learning

Introduction

In the field of education for sustainability, transformative learning is frequently cited as the most effective approach (Blake, Sterling, & Goodson, 2013; Coghlan & Gooch, 2011; Ryan & Cotton, 2013; Sterling, 2013). In essence, transformative learning involves engaging the students ‘head, hand and heart’ (Cotton & Winter, 2010:46) leading to a change in perspective, values and, hence, lifestyle (Blake et al., 2013).

Experiential learning (Adlong, 2013; Brundiers & Wiek, 2011) is regarded as a valuable tool in education for sustainability, as long as this experiential learning leads to action and change (Adlong, 2013) so that students gain experience in making a positive impact on the world (Rowe, 2007). Volunteering abroad can provide a unique space for experiential learning as well as the benefits of immersion in another culture. In this way, volunteer tourism has the potential to promote transformative learning (Coghlan & Gooch, 2011). In addition, much informal learning can occur in relation to sustainability during volunteering on sustainability projects (Ryan & Cotton, 2013). As well as delivering numerous personal development benefits to students, volunteering can also meet a need of the community in which the volunteers are located (Beehr, LeGro, Porter, Bowling, & Swader, 2013).

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Because of this, volunteering abroad has become more common as part of university studies in US, Canada, China and Japan (Simha, Topuzova, & Albert, 2011). While providing opportunities for students to study abroad has also been regarded as a way of educating for sustainability (Coghlan & Gooch, 2011; Cusick, 2009), combining volunteering with formal study abroad is less common.

The International Sustainability Project described in this paper combined volunteering in collaboration with locals and formal study abroad. “It has been the best life lesson and experience I have ever had” according to one of the eighteen university students from Swinburne University in Australia, who in January 2014, participated in the inaugural International Sustainability Project in Vietnam. Other students expressed similar sentiments. This unique project is a credit-bearing higher education unit which offers students an opportunity to engage with peers in a developing country in the completion of a project targeting an issue of environmental sustainability of importance to the local community. In this case, the destination was Tra Vinh, a small town in the Mekong Delta in Vietnam. Tra Vinh University (TVU) is a recent signatory to the Tailloires Declaration of commitment to environmental sustainability in higher education. The Australian students were asked to collaborate with a group of local university students designing sustainability projects to help make Tra Vinh University campus and the surrounding community more ‘green’.

Cusick (2009:811) considers that any transformative learning resulting from sustainability focussed study abroad programs “may not be evident in the short term”. The project which Cusick observed was quite different from the one reported in this paper. It involved students travelling almost constantly, and mainly engaging in formal learning. By contrast, the students in the International Sustainability Project were based in Tra Vinh for the duration and had opportunities to develop meaningful relationships with locals. As will be shown in this paper, students’ own reflections on their experience, indicate that the particular combination of volunteering and overseas cultural immersion in an academic credit-bearing unit with a sustainability focus, can rapidly promote transformative learning about sustainability.

After a description of the structure of the unit, this paper analyses some of the factors identified as critical to the success of the first iteration of this project as well as the lessons learned. The intention is to enable others involved in designing and delivering sustainability focussed curriculum abroad to learn from this experience. The paper is also relevant to those who want to involve students in academic learning through green campus activities.

The formal aims and structure of International Sustainability Project

In the education for sustainability literature, real-world problem-solving combined with understanding of the responsibilities of global citizenship are seen as key in enabling transformative learning (Adlong, 2013; Brundiers & Wiek, 2011; Thomas, 2009; Wiek, Withycombe, & Redman, 2011). The aim of the International Sustainability Project is to offer students an opportunity to engage with peers in the completion of an offshore project targeting an issue of environmental sustainability of importance to the local community; in other words, to engage in real-world problem solving. Students can expect to apply their previous academic learning in this real world project and to critically explore the relevance of this learning within the sociocultural environment in which they are located. The unit focuses on the development of embedded environmental understanding and is designed to result in the advancement of a suite of skills including: teamwork, leadership, problem solving and global social responsibility.

The content of the unit is designed around the following desired learning outcomes for students undertaking this unit of study. These are shown in Table 1.
Table 1: Desired learning outcomes for students undertaking International Sustainability Project.

1. Demonstrated responsibility and accountability for own learning and personal effectiveness as a volunteer participant
2. Ability to work with others to analyse, generate and transmit solutions to unpredictable and sometimes complex problems
3. Communication skills to present a clear, coherent and independent exposition of community engagement around sustainability
4. Cognitive skills to review critically, analyse, consolidate and synthesise knowledge about volunteerism in relation to local and global concerns about sustainability
5. Ability to adapt knowledge and skills in diverse contexts

The learning and teaching structure of the unit consists of two six-hour workshops, a two-hour pre-departure briefing, and two weeks of fieldwork. Attendance at the teaching sessions and the prescribed offshore activities is compulsory in order for students to pass the unit. The unit is designed so that, given the appropriate partner support, it can potentially be conducted in any country. The project was conducted in Vietnam in 2014 and is scheduled for Vietnam in 2015. The rest of this paper refers to the International Sustainability Project actually conducted in Vietnam in 2014.

Selecting the students

The unit was open to students from any discipline as interdisciplinarity is regarded as an important aspect of education for sustainability (Cotton & Winter, 2010; Jones, Selby, & Sterling, 2010; Kevany, Huisingh, Lozano García, & Kevany, 2007; Rowe, 2007; Sterling, 2013; Thomas, 2009). The selection process for the Australian students required them to write a statement of no more than 400 words outlining their motivation for wanting to participate in the International Sustainability Project. According to Gray (2010), knowing what a student's motivation is to participate in a volunteering project will help to assess whether or not they are suitable. Gray does not, however, actually specify which motivations are considered legitimate. The motivations for students to volunteer can be broadly divided into altruistic reasons and reasons of self-interest (Qiao & A’rong, 2008) or to put it another way, personal benefits versus benefits to the collective. We were interested in students who appeared to have a balance of altruism and self-interest. These applicants were shortlisted on the basis of a demonstrated interest in sustainability, volunteering experience and an indication, in their statement, of an openness to what they could learn from the experience.

The Australian convenors were basically looking for students who seemed that they would be able to get along with a range of people and be able to deal with things not going to plan. We also wanted to achieve some sort of gender balance. The final group consisted of ten females and eight males. Twelve of the students were aged between 19 and 24, with the remaining six aged between 25 and 32 years. Although the individual interviews were time-consuming, we believe that it is a crucial part of the selection process. This is because the peer group is especially important in creating an environment that is open to learning (Higgs & McCarthy, 2005). The final group worked well together in Vietnam, forging a strong group identity and looking out for each other. Half of the group had never been overseas before and some students suffered culture shock.

TVU selected the Vietnamese students to be involved in the sustainability project through a competitive process. The students were chosen on the basis of the level of their English language skills as well as their interest in being involved. This meant that most of the TVU students were English language students and few had any prior knowledge of, or interest in, sustainability issues. While some of the Australian students were disappointed by the Vietnamese students’ low level of prior understanding of sustainability issues, it was rewarding to see those who had never thought about these issues become interested and engaged.

Adequate preparation

It was critical to the success of the project that both Australian conveners had previously been to Tra Vinh university. This meant that they knew ahead what the facilities and the environment were like. The two universities had started planning the schedule of activities almost one year prior to the trip,
although once in Vietnam the Australian conveners had to accept that they were now guests and let
go of control when last minute changes were made.

It is important to mentally prepare student volunteers about the local conditions, including the extent of
any poverty or hardship in living conditions (Qiao & A’rong, 2008). Students also need to be
thoroughly briefed about the local culture and forewarned in advance of any possible conflict with their
values that they may experience (Gray, 2010). Part of adequately preparing volunteers is managing
their expectations. This includes expectations about what they will achieve and expectations about
how they will be received (Qiao & A’rong, 2008).

About two months before departure, half of the students were able to take up the opportunity to
participate in a free course of eight two-hour Vietnamese lessons by a native Vietnamese speaker.
The two Australian convenors also participated in this course. Vietnamese is a very difficult language,
and although the language skills gained were minimal, the course introduced the students to the
principles of the language, to Vietnamese culture, and to each other.

One month before the Australian students were to depart they were required to attend a two-day
workshop on campus. This comprised sessions in intercultural communication, volunteering,
sustainability, community engagement, the history, politics and culture of Vietnam, as well as a
session on global citizenship. Understanding the responsibilities of global citizenship has been
identified as an important approach to education for sustainability (Kevany et al., 2007). In addition to
giving students background on sustainability issues, the workshops included an activity that involved
students walking in pairs around their campus, making notes on what aspects of the campus were
sustainable, and what improvements to sustainability could be made. This activity was crucial as it
meant that when students toured the campus in Tra Vinh, they were able to compare sustainability
with their home campus. In many aspects, the comparison was not a flattering one.

**Ensuring learning outcomes for students**

It is considered that having the study tour as a credit-bearing unit was crucial to its success. It meant
that students were expecting to work and to learn rather than treating the two weeks in Tra Vinh as a
holiday, an important aspect in ensuring good learning outcomes (Cusick, 2009). The unit was open to
students from any disciplinary background, so the academic content of the unit had to be designed
assuming no prior knowledge of sustainability. As already mentioned, the benefits of interdisciplinary
approaches to sustainability issues are well recognised.

As can be seen from the schedule of activities shown in Table 2, an effort was made to achieve a
balance of in-classroom activities, practical activities and students needing to organise their own time
to work on the written proposals. There was also ample free time for the Australian students to
socialise with each other, and with their newfound friends from TVU.

In Vietnam, the classroom was used to reintroduce the Australian students to sustainability issues.
For most TVU students, this was the first time they had formally participated in a training workshop on
sustainability. In small groups, students discussed each of the ten points of the Talloires declaration in
terms of what TVU already does, what Swinburne University already does and what more TVU could do.
Table 2: Schedule of daily activities in Tra Vinh

<table>
<thead>
<tr>
<th>Day</th>
<th>Activity</th>
<th>Responsible for organising</th>
</tr>
</thead>
<tbody>
<tr>
<td>Day 1</td>
<td>Welcome ceremony and welcome dinner</td>
<td></td>
</tr>
<tr>
<td>Day 2</td>
<td>Classroom training on ‘Green campus’. Walking tours of campus to identify sustainability issues.</td>
<td>Australia, Vietnam</td>
</tr>
<tr>
<td>Day 3</td>
<td>Classroom training on project design. Project groups reported on their ideas for a ‘green’ campus project and received feedback.</td>
<td>Australia</td>
</tr>
<tr>
<td>Day 4</td>
<td>Bus tour of local area</td>
<td>Vietnam</td>
</tr>
<tr>
<td>Day 5</td>
<td>Toured a Chemical company involved in many sustainability activities</td>
<td>Vietnam</td>
</tr>
<tr>
<td>Day 6</td>
<td>Classroom training on project design. Project groups reported on their ideas for a ‘green’ campus project and received feedback.</td>
<td>Australia</td>
</tr>
<tr>
<td>Day 7</td>
<td>Weekend - recreational visit to neighbouring town</td>
<td>Australia</td>
</tr>
<tr>
<td>Day 8</td>
<td>Green activities on campus – planting trees, rubbish collection, making</td>
<td>Vietnam</td>
</tr>
<tr>
<td>Day 9</td>
<td>Harvest agricultural products – watermelons, peanuts, corn</td>
<td>Vietnam</td>
</tr>
<tr>
<td>Day 10</td>
<td>Garbage collection at local tourist attraction</td>
<td>Vietnam, Australia</td>
</tr>
<tr>
<td>Day 11</td>
<td>Paired presentations (Australian/TVU student) – assessment item for Australian students</td>
<td>Australia</td>
</tr>
<tr>
<td>Day 12</td>
<td>Closing ceremony - including student Group presentations of project proposals</td>
<td>Vietnam, Aust/Vietnam</td>
</tr>
<tr>
<td>Day 13</td>
<td>Depart</td>
<td></td>
</tr>
</tbody>
</table>

The importance of being social

A problem that has been identified with many study abroad programs is that students participating in these programs may not have sufficient interaction with locals to challenge their existing world views. As Cusick (2009: 805) puts it, “A risk is that students return home with stereotypes reinforced rather than achieving the learning outcomes of global literacy and citizenship”.

Although there was structured interaction in both the classroom and practical activities, an equally important part of the interaction in the International Sustainability Project was social. Australian and TVU students played soccer and boules together, went to dinner and karaoke and just chatted. The Australian students participated in the university’s English Speaking club, teaching the local students about being a global citizen and participating in the old-fashioned games organised by the TVU students. The final night was a joint buffet dinner and disco. It is considered that much informal learning about sustainability occurred in these social interactions.

Learning outcomes through assessment structured around reflection and problem-solving

The assessment was designed to achieve the learning outcomes for the unit in a way that was accessible to students from all academic disciplines. The assessments were structured around reflection and real-world problem solving; both of these are regarded as key in facilitating transformative learning (Aadlong, 2013; Brundiers & Wiek, 2011; Coghlan & Gooch, 2011; Ryan & Cotton, 2013; Thomas, 2009; Wiek et al., 2011). There were four tasks that students are assessed on, two written tasks and two oral presentations, and demonstrated understanding of the unit readings was required in these assessments. Before they departed for Vietnam, students were required to submit a short written piece about their expectations for the study tour.

At the beginning of the trip, each student was issued with a journal and was required to spend time each day documenting, and reflecting on, their experiences. These journal entries were handed to the Australian convenors at the end of each day. In this way, the journal entries provided a source of daily
feedback to the convenors about how the trip was going and whether any students were experiencing any difficulties coping with any aspect of the trip. These were not marked but were given back to students at the end of the trip for students to use in writing their final report. The final report to be submitted after returning to Australia was to include their learnings, the impact the study tour had on them, what impact they thought it had on Tra Vinh, what they perceived to be the critical factors necessary for achieving positive change towards environmental sustainability in Tra Vinh, and how their disciplinary knowledge could assist Tra Vinh to achieve sustainable outcomes.

On the first day in Tra Vinh, each Australian student was paired with a TVU buddy. This was a random matching based on where students were sitting in the initial welcome ceremony. Students worked with their buddy in a group of three buddy pairs on project proposals and at the end of the two weeks, as part of the assessment of the Australian students, each buddy pair jointly delivered a short oral presentation about the main achievements of the collaboration between the two universities, any positive outcomes, challenges and difficulties encountered. Communicating in English and sufficient time to make a difference were mentioned as the main challenges.

After returning to Australia, student pairs were assigned one of the following topics: environmental sustainability, effective volunteering, community engagement, global citizenship, cross-cultural communication. Each pair had to give a five minute presentation on their assigned topic relating it to the visit to Tra Vinh.

The second written piece of assessment was also done in student pairs. Students were to write a proposal for a sustainability project as a way of answering the question ‘if you could do anything to increase sustainability in Tra Vinh, what would you do?’ Students were assessed against pre-given criteria that were drawn from an actual grants program. The idea was that if students were passionate about their idea, they would be encouraged to actually apply for a grant to see their project happen; indeed, one student pair have been motivated to do this.

**Scaffolding the learning in practical activities**

It appeared that students learned the most from the practical activities, but in order to maximise student learning, there needed to be educational input from the teachers. It was found that students did not necessarily notice important aspects of what they were doing unless they were pointed out and discussed. Convenors had to actively provide the scaffolding (Hogan & Pressley, 1997) for learning to happen in the practical activities. There were two occasions on which students picked up rubbish and each occasion achieved very different learning outcomes for the students. The following account illustrates this.

In Vietnam, the social norms around litter are very different to in Australia. Rubbish bins are few and litter is very visible. On Day 8, the combined group of students were involved in undertaking ‘green’ activities around campus, including planting trees and picking up rubbish. The rubbish was weighed at the end of the collection period and, in just over half an hour, 53.1 kg had been collected. However, although students enjoyed planting the trees, their enthusiasm flagged when it came to picking up the rubbish.

Realising that the activities were not speaking for themselves, the convenors took a more structured approach to the second occasion of rubbish collection. This was on Day 10 where rubbish was to be collected at a local tourist attraction, a natural pond of cultural significance. Before this activity, the students were reminded that this was a chance for them to make a tangible difference to the environment of Tra Vinh. The activity was made into a competition with a prize for the largest weight of rubbish collected. Again the rubbish was weighed and it was found that the group of 36 Tra Vinh students and Australian students had collected 151.2 kg in just under an hour. The difference was that this time, the convenors asked students to identify what were the predominant types of rubbish items (plastic straws, plastic bags and polystyrene takeaway food containers) and the Australian students were asked to think about how these items differed from what would be found when collecting rubbish in Australia. In the ensuing discussion, conducted around the collected rubbish, the Australian students learnt more about how litter from plastic bottles and aluminium cans could be reduced in Australia. Tra Vinh students who had never noticed ‘rubbish’ before, were now able to see it and understand the detrimental impact that it was having on their environment. Students also discussed practical and more sustainable alternatives to plastic straws, plastic bags and polystyrene
takeaway food containers. From later comments, it seemed that many of the students were quite profoundly affected by this learning experience.

Ensuring tangible outcomes to the community

The impacts of students volunteering projects are well documented. These include benefits to the student, or private benefits, and collective benefits (Hustinx, Handy, & Cnaan, 2012). The biggest impact of student volunteering projects tends to be on the personal development of the students who volunteered (Hustinx et al., 2012), including the development of character (Gray, 2010) and students in many studies have referred to these impacts as transformative (Geng, 2008; Simha et al., 2011). In the literature, as in the Vietnam project, students reported feeling a great sense of achievement as they overcame initial difficulties, and this increased their self-confidence.

Typically other benefits to individuals who volunteer are the making of social contacts, the development of listening skills, interpersonal communications skills, teamwork skills, general organisational skills, leadership skills, maturity and increased self-awareness. (Simha et al., 2011; Qiao & A’rong, 2008). These skills were gained by participants in the Vietnam project. The Australian students formed lasting friendships with Tra Vinh students and many of the Australian students participating in the project reported on the experience as ‘life-changing’ with several planning to return. One student summarised the benefits to her as follows: “It enabled me to acquire a range of skills such as responsibility, communication, patience, understanding, creativity and commitment as well as acquire knowledge about sustainable practices”.

The skills that students learn from volunteering are especially important as university students are likely to be the future leaders (Hongyan, 2011; Hustinx et al., 2012). It has been found that students who join international volunteer projects generally become less ethnocentric and more appreciative of other cultures (Bergami, 2012; Smith, Parr, Woods, Bauer, & Abraham, 2010; Yashima, 2010). The students from Tra Vinh are not exposed to Western culture and have very few material possessions. Some of the Australian students were disturbed by this lack of participation in Western consumer culture, and it became clear to us that we needed to emphasise intercultural communication and understanding in the pre-departure workshop much more than we had. This uncomfortableness may also be an indication that these students existing values were being challenged, a first step towards transformative learning (Blake et al., 2013). Other students, however, were inspired by the simple and sustainable lifestyle of the TVU students and the transformative effect of this is apparent in the following quotes from two Australian students:

“The tour taught us to live simply, appreciate the resources we have available and consider the effects our actions may have upon others”.

“Before the International sustainability trip I considered myself to be a minimalist, lured into high quality products but always limiting my consumption. The trip altered this perception of myself as I was exposed to lives where consumerism doesn’t really exist and people are content with the little items they possess.”

It is important that the community in which students volunteer is actively involved in the project, rather than just being a passive recipient (Garcia, Clark, & Walfish, 1979). Somewhat paradoxically, the benefits of volunteering are more likely to accrue to the student volunteers themselves, rather than to the local community. This makes it a challenge to ensure that the local community do in fact benefit and the project is not just exploiting the local community in order to develop the skills of the Australian students.

In fact, the local community was positively affected. The TVU staff considered that they learnt more about sustainability and ‘green’ campuses and, as a result, they were inspired to organise a Regional Conference on Sustainability and Education in Tra Vinh. One of the Australian students had the following to say about the impact on TVU students: “I believe we made an impact on the students because their voice and opinion was heard and they came out feeling empowered and realise their responsibility to make a change in their community.”

Local TVU students admitted that they admired the Australian students’ well-rounded knowledge of environmental issues, and how the Australian students’ treatment of ‘plastic-made material’ made
them think twice before using and discarding a plastic bag in the campus. In fact, following this joint green project and the Regional Conference on Sustainability in Feb 2014, the TVU management board accepted a budget to purchase several two-seater bicycles for TVU students to ride around the Campus One picking up rubbish.

The students from the two countries collaborated to formulate a series of proposals to increase sustainability in Tra Vinh. Each group were required to prepare a written ‘Green Campus’ project proposal, with a compelling rationale, clear project objectives and aims, desired outcomes, plan of implementation (including timeframe and resources required), measures of success, key stakeholders and risk management strategy.

The six ‘Green Campus’ projects that the students came up with were:

- Providing resusable bottles to students and drinking fountains (instead of using bottled water).
- Creation of a Tra Vinh Environmental Sustainability Group
- TVU involvement in educating local primary school students about sustainability
- TVU involvement in educating local high school students about sustainability
- Rainwater harvesting
- Providing a university bus service to the university.

Staff also designed a project around composting of food waste on campus. The Rector of Tra Vinh university came and listened to the Australian and TVU students give presentations outlining these proposals. Written proposals were later presented to the entire Senior Management of TVU.

Concluding remarks

The International Sustainability Project demonstrated that combining structured volunteering with a credit-bearing study abroad experience can promote transformative learning about sustainability. Key success factors of the International Sustainability Project included gaining the trust and support of the community long before the study tour happens, giving the host country adequate ownership, and being flexible about last minute changes to the agreed schedule. Other key aspects that this paper has discussed in more detail are the need to adequately prepare the students, structuring assessment around reflection and problem-solving, the need to actively scaffold the learning in practical activities, providing sufficient opportunities for social interaction with the locals, and finally, ensuring that there are tangible outcomes to the community.

Returning to Cotton and Winter’s (2010) contention that transformative learning involves engaging a student’s head, hands and heart, we can see that the International Sustainability Project did just this. The project engaged student’s ‘heads’ through classroom learning, and problem-solving, their hands, through practical ‘green’ activities around the campus and community, and their heart through the relationships established with TVU students. As part of the reflection after the trip, students were asked to reflect on what impact the trip had on them. Many of the responses indicated that transformative learning had occurred. We end with two of these.

“The two weeks on the project has affected me personally and made me reflect on my own consumption and whether it is necessary to live a lifestyle that will affect future generations. It has made me wanted to live a simpler life because the ‘stuff’ in my life is not going to make me any happier.”

“It has pushed me to grow and to think in a way that constantly challenges our way of life back home…It was only on reflection of all that had occurred throughout the sustainability project and all that I had seen that I finally realised a shift in my beliefs and values that lead to slight changes in my behaviour and how I viewed certain situations.”

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